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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/801,773	03/09/2001	Osamu Kuroda	Q61192	4550

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EXAMINER

LEE, SHUN K

ART UNIT	PAPER NUMBER
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2884

DATE MAILED: 01/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary

Application No.

09/801,773

Applicant(s)

KURODA ET AL.

Examiner

Shun Lee

Art Unit

2884

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2005 and 26 October 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3,7,9,11,12,16,18 and 19 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2,3,7,9,11,12,16 and 19 is/are allowed.
- 6) ☒ Claim(s) 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 2, 7, and 19 are objected to because of the following informalities:
 - (a) in claim 2, "a" on line 1 should probably be --said-- (see "a boundary line" on line 13 in claim 16);
 - (b) in claim 7, "a boundary line" on line 9 should probably be --said boundary line-- (see "a boundary line" on line 7 in claim 7); and
 - (c) in claim 19, "a boundary line" on line 11 should probably be --said boundary line-- (see "a boundary line" on line 5 in claim 19).

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Newman *et al.* (US 5,420,441) in view of Farrokhnia *et al.* (US 6,231,231).

In regard to claim **18**, Newman *et al.* disclose (column 7, lines 42-47; Fig. 6) a storable fluorescent inspection sheet (106) having stored and recorded a radiation inspection image (e.g., having a rectangular shape; see Fig. 11) that has a density pattern in which one or more low-density and high-density regions having a contrast difference of at least 1:20 (*i.e.*, cascading six lead masks with each 0.05 mm lead layer resulting in a roughly 30% x-ray modulation depth; column 6, lines 54-66; thus providing transmissions ranging from 1 to 0.03; column 8, lines 39-40) are arrayed in a horizontal scanning direction. The sheet of Newman *et al.* lacks that the boundary line between the low-density and high-density regions extends between opposite edges of the sheet. However, test targets are well known in the art. For example, Farrokhnia *et al.* teach (column 7, lines 25-58) to incline the straight boundary lines between a plurality of low-density and high-density regions with respect to the horizontal scanning direction in order to determine both horizontal and vertical MTF in an x-ray system. Therefore it would be obvious to one of ordinary skill to incline the straight boundary lines (e.g., on an image diagonal) in the sheet of Newman *et al.* between a plurality of low-density and high-density regions with respect to the horizontal scanning direction, in order to determine a plurality of horizontal and vertical MTF along a line from one radiation inspection image edge to the opposing radiation inspection image edge.

Allowable Subject Matter

5. Claims 2, 3, 7, 9, 11, 12, 16, and 19 are allowed.
6. The following is a statement of reasons for the indication of allowable subject matter: the instant application is deemed to be directed to a nonobvious improvement over the invention patented in US Patent 5,420,441. The improvements comprise in combination with other recited elements: (a) detecting whether noise occurs in the form of a line in the vertical-scanning direction in the low-density region of an image reproduced from the image inspection signal, and judging that stray light has occurred if the noise occurs and that stray light has not occurred if the noise does not occur, based on the detection of the noise as recited in independent claims 9 and 16 (and claims 2, 3, and 12 which depend from claim 16); and (b) repeating the disposition of a radiation shielding member and the illumination of radiation, with respect to a storable fluorescent sheet until a density pattern is obtained as recited in independent claims 7, 11, and 19.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the


shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shun Lee whose telephone number is (571) 272-2439. The examiner can normally be reached on Tuesday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SL


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